

## Author index

- ÅBORG, C.-H. (see UVNÄS, B.)  
 ÅGNATI, L. F. (see FUXE, K.)  
 ÅGNATI, L. F. (see GRIMALDI, R.)  
 ÅHLMAN, H. (see WIGANDER, A.)  
 ALÉN, M. (see VIINAMÄKI, O.)  
 ANDÉN, N.-E., GRABOWSKA-ANDÉN, M. & SCHWIELER, J. Transfer of DOPA from the sympatho-adrenal system to the pancreas, liver and kidney via the blood circulation, 75  
 ANDÉN, N.-E., GRABOWSKA-ANDÉN, M. & SCHWIELER, J. Effects of a ganglionic blocking agent on the accumulation of DOPA in peripheral organs, 131  
 ANDERSSON, K.-E. (see RYMAN, T.)  
 ANDERSSON, K.-E. (see SJÖBERG, T.), 463  
 ANDERSSON, S. A. (see DAHLIN, L. B.)  
 APERIA, A. (see EKLÖF, A.-C.)  
 APERIA, A. (see SAHLGREN, B.)  
 ÅRHEM, P. (see JALONEN, T.)  
 ARJAMAA, O. Atrial natriuretic peptide (ANP): response to NaCl is attenuated in rat atria *in vitro* after hypophysectomy, 499  
 ASK, J. A. (see STUHR, L. E. B.)  
 ÅSTRAND, P. (see STJÄRNE, L.), 299  
 ÅSTRAND, P. & STJÄRNE, L. ATP as a sympathetic co-transmitter in rat vasomotor nerves - further evidence that individual release sites respond to nerve impulses by intermittent release of single quanta, 355  
 AUGUSTINSSON, O. & FORSLID, A. Aldosterone secretion during acute respiratory acidosis and NH<sub>4</sub>Cl-induced metabolic acidosis in the goat, 339  
 BAO, J. X., ERIKSSON, I. E. & STJÄRNE, L. Neurogenic contractions in the tail artery of normotensive rats are mediated by noradrenaline and ATP via post-junctional  $\alpha_1$ - and  $\alpha_2$ -adrenoceptors and P<sub>2x</sub>-purinoceptors, 139  
 BAO, J. X., ERIKSSON, I. E. & STJÄRNE, L. Age-related variations in the relative importance of noradrenaline and ATP as mediators of the contractile response of rat tail artery to sympathetic nerve stimulation, 287  
 BAO, J. X., ERIKSSON, I. E. & STJÄRNE, L. Neurogenic contractions in caudal artery from young rats: receptor-receptor interaction and regional differences in effects of noradrenaline and ATP via  $\alpha_1$ -,  $\alpha_2$ - and P<sub>2x</sub>-receptors, 619  
 BEEUWKES III, R. (see SJÖQVIST, A.)  
 BENT-HANSEN, L. Initial plasma disappearance and distribution volume of [<sup>131</sup>I]albumin and [<sup>125</sup>I]fibrinogen in man, 455  
 BERGGREN, P.-O. (see SAGULIN, G.-B.)  
 BLOMSTRAND, E. (see LEIGHTON, B.)  
 BLOMSTRAND, E., PERRETT, D., PARRY-BILLINGS, M. & NEWSHOLME, E. A. Effect of sustained exercise on plasma amino acid concentrations and on 5-hydroxytryptamine metabolism in six different brain regions in the rat, 473  
 BORGES, O. & ESSÉN-GUSTAVSSON, B. Enzyme activities in type I and II muscle fibres of human skeletal muscle in relation to age and torque development, 29  
 BRANDT, L. (see RYMAN, T.)  
 BROBERG, S. (see SAHLIN, K.), 193, 293  
 BRODIN, E. (see BRODIN, K.)  
 BRODIN, E. (see ROSÉN, A.)  
 BRODIN, K., ROSÉN, A., IWARSSON, K., ÖGREN, S.-O. & BRODIN, E. Increased levels of substance P and cholecystokinin in rat cerebral cortex following repeated electroconvulsive shock and subchronic treatment with a serotonin uptake inhibitor, 613  
 BUANES, T. (see GROTMOL, T.)  
 CABERO, J. L., REHFELD, J. F. MÅRDH, S. The effects of various gastrins on intracellular free Ca<sup>2+</sup> in isolated pig parietal cells, 301  
 CHALLIS, R. A. J. (see LEIGHTON, B.)  
 CHANG, J.-Y. & OWMAN, CH. Cerebrovascular serotonergic receptors mediating vasoconstriction: further evidence for the existence of 5-HT<sub>2</sub> receptors in rat and 5-HT<sub>1</sub>-like receptors in guinea-pig basilar arteries, 59  
 CLEMONS, G. K. (see WIDNESS, J. A.)  
 CONRADI, N. G. (see SJÖSTRÖM, A.)  
 CONRADI, N. G. & SJÖSTRÖM, A. Functional development of the visual system in normal and protein-deprived rats. VII. Lamination of oxidative enzyme activity in the visual cortex during post-natal development, 589  
 CONRADI, N. G., SJÖSTRÖM, A. & RYDENHAG, B. Functional development of the visual system in normal and protein-deprived rats. VIII. Post-natal development of optic nerve axons, 597  
 CORTELLI, P. (see GRIMALDI, R.)  
 DAHL, H. A. (see JENSEN, J.)  
 DAHLIN, L. B., SHYU, B. C., DANIELSEN, N. & ANDERSSON, S. A. Effects of nerve compression or ischaemia on conduction properties of myelinated and non-myelinated nerves fibres. An experimental study in the rabbit common peroneal nerve, 97  
 DAHLSTRÖM, A. (see WIGANDER, A.)  
 DANIELSEN, N. (see DAHLIN, L. B.)

- DANIELSSON, I. & NORRSELL, U. Orienting reactions to light tactile stimuli after single and repeated partial spinal cord lesions in the cat, 121
- DANIELSSON, L.-G. (see UVNÄS, B.)
- DELBRO, D. & GUSTAFSSON, B. I. Vagally induced hexamethonium-resistant jejunal contractions in the cat, 621
- DIMITRIADIS, G. D. (see LEIGHTON, B.)
- EDFELDT, H. (see LÄNNE, T.), 141
- EDMAN, K. A. P. (see MÄNSSON, A.), 37
- EKEN, T. & KIEHN, O. Bistable firing properties of soleus motor units in unrestrained rats, 383
- EKLÖF, A.-C. & APERIA, A. Renal function in different forms of renovascular hypertension, 487
- EKMEHAG, B. L. & HELLSTRAND, P. Shortening velocity, myosin light chain phosphorylation and  $\text{Ca}^{2+}$  dependence of force during metabolic inhibition in smooth muscle of rat portal vein, 367
- EKSTRÖM, J., NILSSON, B.-O. & ROSENGREN, E. Substance P and vasoactive intestinal peptide influence polyamine metabolism in salivary glands of the rat, 427
- ERIKSSON, I. E. (see BAO, J. X.), 139, 287, 619
- ESKESEN, K. (see USSING, H. H.)
- ESKESEN, K. & USSING, H. H. Transport pathways for  $\text{Na}^+$  and  $\text{Br}^-$  ( $\text{Cl}^-$ ) in noradrenaline-stimulated frog skin (*Rana temporaria*), 535
- ESKESEN, K. & USSING, H. H. The effect of amiloride and benzimidazoleguanidine added to the inside medium on electrolyte pathways in the frog skin glands, 547
- ESSÉN-GUSTAVSSON, B. (see BORGES, O.)
- VON EULER, G. (see FUXE, K.)
- FÄNDRIS, L. (see JONSON, C.)
- FERRAGUTI, F. (see GRIMALDI, R.)
- FINNMAN, U.-B. (see FUXE, K.)
- FLEMSTRÖM, G. (see LÖNNERHOLM, G.)
- FORSLLID, A. (see AUGUSTINSSON, O.)
- FRANCO-CERECEDA, A. & RUDEHILL, A. Capsaicin-induced vasodilatation of human arteries *in vitro* is mediated by calcitonin gene-related peptide rather than substance P or neurokinin A, 575
- FREDHOLM, B. B. (see HU, P.-S.)
- FUXE, K. (see GRIMALDI, R.)
- FUXE, K. (see ÖGREN, S.-O.)
- FUXE, K. VON EULER, G., FINNMAN, U.-B. & AGNATI, L. F. Reduction of [ $^3\text{H}$ ]nicotine binding in hypothalamic and cortical membranes by dopamine D1 receptors, 295
- GRABOWSKA-ANDÉN, M. (see ANDÉN, N.-E.), 75, 131
- GRAPENGIESSER, E., GYLFE, E. & HELLMAN, B.  $\text{Ca}^{2+}$  oscillations in pancreatic  $\beta$ -cells exposed to leucine and arginine, 113
- GRENHOF, J. (see SVENSSON, T. H.), 497
- GRIMALDI, R., ZINI, I., FERRAGUTI, F., CORTELLI, P., FUXE, K., AGNATI, L. F. & ZOLI, M. Effects of transient forebrain ischaemia on vasoactive intestinal polypeptide-immunoreactive neuronal populations in the frontoparietal cortex and hippocampal formation of the male rat, 289
- GROTMOL, T., BUANES, T. & RØEDER, M. Effects of digitoxin and lithium, used as a marker of passive Na transport, on secretin-dependent bile flow in the pig, 411
- GUSTAFSSON, B. I. (see DELBRO, D.)
- GUTH, B. D. (see THAULOW, E.)
- GYLFE, E. (see GRAPENGIESSER, E.)
- HÄGÅ, P. (see WIDNESS, J. A.)
- HAGLIND, E. (see LUNDGREN, O.)
- HALVORSEN, S. (see WIDNESS, J. A.)
- HARDEBO, J. E., WIELOCH, T. & KÄHRSTRÖM, J. Excitatory amino acids and cerebrovascular tone, 483
- HEINONEN, O. J. (see VIINAMÄKI, O.)
- HELLMAN, B. (see GRAPENGIESSER, E.)
- HELLSTRAND, P. (see EKMEHAG, B. L.)
- HENRIKSSON, J. (see NIE, Z. T.)
- HOLOPAINEN, I. (see JALONEN, T.)
- HOLST, J. J., ØRSKOV, C., KNUHTSEN, S., SHEIKH, S. & NIELSEN, O. V. On the regulatory functions of neuropeptide Y (NPY) with respect to vascular resistance and exocrine and endocrine secretion in the pig pancreas, 519
- HU, P.-S. & FREDHOLM, B. B.  $\alpha_2$ -Adrenoceptor agonist-mediated inhibition of [ $^3\text{H}$ ]noradrenaline release from rat hippocampus is reduced by 4-aminopyridine, but that caused by an adenosine analogue or  $\omega$ -conotoxin is not, 347
- IVERSEN, P. O., STANDA, M. & NICOLAYSEN, G. Marked regional heterogeneity in blood flow within a single skeletal muscle at rest and during exercise hyperaemia in the rabbit, 17
- IWARSSON, K. (see BRODIN, K.)
- JALONEN, T., JOHANSSON, S., HOLOPAINEN, I., OJA, S. S. & ÅRHEM, P. A high-conductance multi-state anion channel in cultured rat astrocytes, 611
- JANSSON, E. (see SYLVÉN, C.)
- JENSEN, J., DAHL, H. A. & ØPSTAD, P. K. Adrenaline-mediated glycogenolysis in different skeletal muscle fibre types in the anaesthetized rat, 229
- JOHANSSON, E. (see SCHANTZ, P. G.)
- JOHANSSON, S. (see JALONEN, T.)
- JOHANSSON, S. (see NIE, Z. T.)
- JÖNSEN, C., FÄNDRIS, L. & PETTERSSON, A. Increased duodenal  $\text{HCO}_3^-$  output after blood volume expansion in the rat: an effect mediated by atrial natriuretic peptide (ANP)? 263
- JÖNSSON, C.-O. (see PETTERSSON, A.)
- KÄHRSTRÖM, J. (see HARDEBO, J. E.)

- KALLNER, A. (see SYLVÉN, C.)
- KARLSON, E. (see SCHANTZ, P. G.)
- KARWATOWSKA-PROKOPCZUK, E. (see WENNEMALM, Å.), 81
- KATZ, A. (see SAHLIN, K.), 199
- KATZ, A. & SAHLIN, K. Effect of hypoxia on glucose metabolism in human skeletal muscle during exercise, 377
- KIEHN, O. (see EKEN, T.)
- KIENS, B., SALTIN, B., WALLLØE, L. & WESCHE, J. Temporal relationship between blood flow changes and release of ions and metabolites from muscles upon single weak contractions, 51
- KNUHTSEN, S. (see HOLST, J. J.)
- KNUTSON, L. (see LÖNNERHOLM, G.)
- KUJALA, U. M. (see VIINAMÄKI, O.)
- LÄNNE, T. (see LUNDVALL, J.), 7, 403
- LÄNNE, T., EDELDIT, H. & LUNDVALL, J. Failure of the venous pressure decline in hypovolaemia to be transmitted to the capillary level and cause compensatory absorption of extravascular fluid into the circulation, 141
- LÄNNE, T. & LUNDVALL, J. Very rapid net transcapillary fluid absorption from skeletal muscle and skin in man during pronounced hypovolaemic circulatory stress, 1
- LEIGHTON, B., BLOMSTRAND, E., CHALLISS, R. A. J., LOZEMAN, F. J., BARRY-BILLINGS, M., DIMITRIADIS, G. D. & NEWSHOLME, E. A. Acute and chronic effects of strenuous exercise on glucose metabolism in isolated, incubated soleus muscle of exercise-trained rats, 177
- LEPPALUOTO, J. (see TUOMISTO, L.)
- LEXELL, J. & TAYLOR, C. C. Variability in muscle fibre areas in whole human quadriceps muscle. How much and why?, 561
- LIN, L. (see SYLVÉN, C.)
- LINDVALL-ÅXELSSON, M. & OWMAN, CH. Changes in transport functions of isolated rabbit choroid plexus under the influence of oestrogen and progesterone, 107
- LÖNNERHOLM, G., KNUTSON, L., WISTRAND, P. J. & FLEMSTRÖM, G. Carbonic anhydrase in the normal rat stomach and duodenum and after treatment with omeprazole and ranitidine, 253
- LOZEMAN, F. J. (see LEIGHTON, B.)
- LUNDBERG, J. M. (see PERNOW, J.)
- LUNDGREN, O., HAGLIND, E. & MÅRDH, S. Failure to deduce a peptide inhibitor of Na,K-ATPase from the gene coding for the catalytic  $\alpha$ -subunit of Na,K-ATPase, 281
- LUNDH, A. (see SCHANTZ, P. G.)
- LUNDMARK, K. (see WIGANDER, A.)
- LUNDVALL, J. (see LÄNNE, T.), 1, 141
- LUNDVALL, J. & LÄNNE, T. Much larger transcapillary hydrodynamic conductivity in skeletal muscle and skin of man than previously believed, 7
- LUNDVALL, J. & LÄNNE, T. Transmission of externally applied negative pressure to the underlying tissue. A study on the upper arm of man, 403
- LYSSARIDES, L. (see UVNÄS, B.)
- MCRÆ, A. (see WIGANDER, A.)
- MÄKI, T. Density functioning of human lymphocytic  $\beta$ -adrenergic receptors during prolonged physical exercise, 569
- MÄNSSON, A. The effects of tonicity on tension and stiffness of tetanized skeletal muscle fibres of the frog, 205
- MÄNSSON, A., MÖRNER, J. & EDMAN, K. A. P. Effects of amrinone on twitch, tetanus and shortening kinetics in mammalian skeletal muscle, 37
- MÅRDH, S. (see CABERO, J. L.)
- MÅRDH, S. (see LUNDGREN, O.)
- MÅRDH, S. & SONG, Y.-H. Characterization of antigenic structures in auto-immune atrophic gastritis with pernicious anaemia. The parietal cell H,K-ATPase and the chief cell pepsinogen are the two major antigens, 581
- MELLERGÅRD, P. (see RYMAN, T.)
- MORITANI, T. (see SCHANTZ, P. G.)
- MÖRNER, J. (see MÄNSSON, A.), 37
- MSGHINA, M. (see STJÄRNE, L.), 137, 299, 617
- MÜLLER, R. M. (see SAGULIN, G.-B.)
- MYHRE, K. (see WIDNESS, J. A.)
- NEWSHOLME, E. A. (see BLOMSTRAND, E.)
- NEWSHOLME, E. A. (see LEIGHTON, B.)
- NICOLAYSEN, G. (see IVERSEN, P. O.)
- NIE, Z. T., WALLBERG-HENRIKSSON, H., JOHANSSON, S. & HENRIKSSON, J. Effects of adrenaline and prior exercise on the release of alanine, glutamine and glutamate from incubated rat skeletal muscle, 395
- NIELSEN, O. V. (see HOLST, J. J.)
- NILSSON, B.-O. (see EKSTRÖM, J.)
- NILSSON, J. & THORSTENSSON, A. Ground reaction forces at different speeds of human walking and running, 217
- NILSSON, T. (see SAGULIN, G.-B.)
- NORGREN, L. (see SJÖBERG, T.), 463
- NORRSELL, U. (see DANIELSSON, I.)
- ODDSSON, L. Motor patterns of a fast voluntary postural task in man: trunk extension in standing, 47
- ÖGREN, S.-O. (see BRODIN, K.)
- ÖGREN, S.-O. & FUXE, K. Intraventricular injections of galanin counteract development of head twitches induced by the 5-HT-2 agonist 1-(2,5-dimethoxyphenyl-4-bromo)-2-aminopropane, 297
- OJA, S. S. (see JALONEN, T.)
- OPSTAD, P. K. (see JENSEN, J.)
- ØRSKOV, C. (see HOLST, J. J.)
- OWMAN, CH. (see CHANG, J.-Y.)
- OWMAN, CH. (see LINDVALL-ÅXELSSON, M.)
- PARRY-BILLINGS, M. (see BLOMSTRAND, E.)

- PARRY-BILLINGS, M. (see LEIGHTON, B.)
- PERNOW, J. & LUNDBERG, J. M. Release and vaso-constrictor effects of neuropeptide Y in relation to non-adrenergic sympathetic control of renal blood flow in the pig, 507
- PERRETT, D. (see BLOMSTRAND, E.)
- PETTERSSON, A. (see JÖNSSON, C.)
- PETTERSSON, A. & JÖNSSON, C.-O. Effects of atrial natriuretic peptide (ANP) on jejunal net fluid absorption in the rat, 419
- REHFELD, J. F. (see CABERO, J. L.)
- REN, J. M. (see SAHLIN, K.), 193
- RØEDER, M. (see GROTMOL, T.)
- ROOMANS, G. M. (see SAGULIN, G.-B.)
- ROSÉN, A. (see BRODIN, K.)
- ROSÉN, A. & BRODIN, E. Effect of acute morphine treatment on peptide levels in the peri-aqueductal grey, 493
- ROSENGREN, E. (see EKSTRÖM, J.)
- ROSS JR, J. (see THAULOW, E.)
- RUDEHILL, A. (see FRANCO-CERECEDA, A.)
- RYDENHAG, B. (see CONRADI, N. G.), 597
- RYMAN, T., BRANDT, L., ANDERSSON, K.-E. & MELLERGÅRD, P. Regional and species differences in vascular reactivity to extracellular potassium, 151
- SAGULIN, G.-B., MÜLLER, R. M., WESTLIND-DANIELSSON, A., NILSSON, T., BERGGREN, P.-O. & ROOMANS, G. M. Mechanism of action of calcitonin on secretion in rat submandibular gland, 435
- SAHLGREN, B. & APERIA, A. Regulation of glomerular antidiuretic II receptors in renovascular hypertension: absence of response to variations in salt intake, 495
- SAHLIN, K., BROBERG, S. & REN, J. M. Formation of inosine monophosphate (IMP) in human skeletal muscle during incremental dynamic exercise, 193
- SAHLIN, K. & BROBERG, S. Release of K<sup>+</sup> from muscle during prolonged dynamic exercise, 293
- SAHLIN, K. (see KATZ, A.)
- SAHLIN, K. & KATZ, A. Hypoxaemia increases the accumulation of inosine monophosphate (IMP) in human skeletal muscle during submaximal exercise, 199
- SALTIN, B. (see KIENS, B.)
- SANNGEN, T. (see WIDNESS, J. A.)
- SCHIAZZI, P. G., MORITANI, T., KARLSON, E., JOHANSSON, E. & LUNDH, A. Maximal voluntary force of bilateral and unilateral leg extension, 185
- SCHULZ, R. (see THAULOW, E.)
- SCHWIELER, J. (see ANDÉN, N.-E.), 75, 131
- SHEIKH, S. (see HOLST, J. J.)
- SHYU, B. C. (see DAHLIN, L. B.)
- SISTO, T., TAINIO, H. & VAALASTI, A. Neuropeptides in the human internal mammary artery, 615
- SJÖBERG, T., NORGREN, L., ANDERSSON, K.-E. & STEEN, S. Comparative effects of the  $\alpha$ -adrenoceptor agonists noradrenaline, phenylephrine and clonidine in the human saphenous vein *in vivo* and *in vitro*, 463
- SJÖBERG, T. & STEEN, S. The strong contractile effect of the thromboxane receptor agonist U-46619 in isolated human pulmonary arteries and its competitive antagonism by BM-13,505, 161
- SJÖQVIST, A. & BEEUWKES III, R. Villous sodium gradient associated with volume absorption in the feline intestine: an electron-microprobe study on freeze-dried tissue, 271
- SJÖSTRÖM, A. (see CONRADI, N. G.), 589, 597
- SJÖSTRÖM, A. & CONRADI, N. G. Functional development of the visual system in normal and protein-deprived rats. IX. Visual evoked response in young rats, 605
- SONG, Y.-H. (see MÄRDH, S.)
- STANDA, M. (see IVERSEN, P. O.)
- STEEN, S. (see SJÖBERG, T.), 161, 463
- STJÄRNE, E. (see STJÄRNE, L.), 137, 299, 617
- STJÄRNE, L. (see ÅSTRAND, P.)
- STJÄRNE, L. (see BAO, J. X.), 139, 287, 619
- STJÄRNE, L., MSGHINA, M. & STJÄRNE, E. Is cyclic AMP the intra-axonal messenger 'X' mediating 'upstream' control of sympathetic transmitter secretion?, 617
- STJÄRNE, L., MSGHINA, M., STJÄRNE, E. & ÅSTRAND, P. Ca<sup>2+</sup> may inhibit ATP secretion from sympathetic nerves in rat tail artery by an 'upstream' effect without blocking the Ca<sup>2+</sup> component of the action potential in the terminals, 299
- STJÄRNE, L., STJÄRNE, E. & MSGHINA, M. Does clonidine- or neuropeptide Y-mediated inhibition of ATP secretion from sympathetic nerves operate primarily by increasing a potassium conductance?, 137
- STUHR, L. E. B., ASK, J. A. & TYSSEBOTN, I. Increased cardiac contractility in rats exposed to 5 bar, 167
- SVENSSON, T. H. & TUNG, C.-S. Local cooling of prefrontal cortex induces pacemaker-like firing of dopamine neurons in rat ventral tegmental area *in vivo*, 135
- SVENSSON, T. H., TUNG, C. S. & GRENHOFF, J. The 5-HT<sub>2</sub> antagonist ritanserin blocks the effect of prefrontal cortex inactivation on rat A10 dopamine neurons *in vivo*, 497
- SYLVÉN, C., LIN, L., KALLNER, A. & JANSSEN, E. Regional distribution of citrate synthase and lactate dehydrogenase isoenzymes in the bovine heart, 331
- TAINIO, H. (see SISTO, T.)
- TAYLOR, C. C. (see LEXELL, J.)
- THAULOW, E., GUTH, B. D., SCHULZ, R. & ROSS JR, J. Selective thromboxane A<sub>2</sub> receptor blockade in experimental exercise-induced myocardial ischaemia in dogs, 321
- THESLEFF, P. An electrophysiological *in-vivo* study

- on the effects of nerve stimulation, drugs and denervation in the parotid gland of the rat, 235
- THESLEFF, P. Effects of  $\beta$ -adrenergic agonists in the parotid gland of the rat—an electrophysiological study, 245
- THORSTENSSON, A. (see NILSSON, J.)
- TUNG, C.-S. (see SVENSSON, T. H.), 135, 497
- TUOMISTO, L. & LEPPALUOTO, J. Elevated atrial natriuretic peptide in the brain and heart of Brattleboro rats, 133
- TYSSEBOTN, I. (see STUHR, L. E. B.)
- USSING, H. H. (see ESKESEN, K.), 535, 547
- USSING, H. H. & ESKESEN, K. Mechanism of isotonic water transport in glands, 443
- UVNÄS, B., ÅBORG, C.-H., LYSSARIDES, L. & DANIELSSON, L.-G. Intracellular ion exchange between cytoplasmic potassium and granule histamine, an integrated link in the histamine release machinery of mast cells, 309
- VAALASTI, A. (see SISTO, T.)
- VIINAMÄKI, O., HEINONEN, O. J., KUJALA, U. M. & ALÉN, M. Glucose polymer syrup attenuates prolonged endurance exercise-induced vasopressin release, 69
- WALLBERG-HENRIKSSON, H. (see NIE, Z. T.)
- WALLØE, L. (see KIENS, B.)
- WENNMALM, Å. Application of a new technique—blood pressure clamping—for analysis of prostaglandin interference with sympathetic neurotransmission in man, 89
- WENNMALM, Å., KARWATOWSKA-PROKOPCZUK, E. & WENNMALM, M. Role of the coronary endothelium in the regulation of sympathetic transmitter release in isolated rabbit hearts, 81
- WENNMALM, M. (see WENNMALM, Å.), 81
- WESCHE, J. (see KIENS, B.)
- WESTLIND-DANIELSSON, A. (see SAGULIN, G.-B.)
- WIDNESS, J. A., SANNGEN, T., HÅGÅ, P., CLEMONS, G. K., MYHRE, K. & HALVORSEN, S. Correlation of plasma erythropoiesis stimulating factor(s) and immunoreactive erythropoietin levels during rapid growth in the mouse, 527
- WIELOCH, T. (see HARDEBO, J. E.)
- WIGANDER, A., LUNDMARK, K., McRAE, A., DAHLSTRÖM, A. & AHLMAN, H. Survival of rat fetal cholinergic neurons co-cultured with human carcinoid tumour cells, 291
- WISTRAND, P. J. (see LÖNNERHOLM, G.)
- ZINI, I. (see GRIMALDI, R.)
- ZOLI, M. (see GRIMALDI, R.)



# Subject index

- Acidosis, 339
- Adenine nucleotides, 193, 199
- Adenosine triphosphate (ATP), 139, 287, 355, 617, 619
- Adenylate cyclase, 569
- Adrenaline, 395
- Adrenaline infusion, 229
- $\alpha_1$ -Adrenoceptor(s), 139, 463, 619
- $\alpha_2$ -Adrenoceptor(s), 139, 463, 619
- $\beta$ -Adrenoceptors, 569
- Age, 287
- Albumin, 455
- Aldosterone, 339
- Amiloride, 547
- Amino acid release, 395
- Ammonium chloride, 339
- AMP deaminase, 199
- Amrinone, 37
- Amylase secretion, 519
- Anaesthetized rats, 167
- Angiotensin II receptors, 495
- Anion channels, 611
- Antibody binding site, 581
- Antipyrine, 17
- Arm, 403
- Arteries, 355
- Astrocyte culture, 611
- Atria, 133
- Atrial natriuretic peptide (ANP) 133, 263, 419, 499
- Atrium, 331
- Auto-antibodies, 581
- Axonal flow, 299
- Basilar artery, 59
- Benzimidazoleguanidine, 547
- Bicarbonate, 263
- Bicarbonate secretion, 411, 519
- Bile duct cells, 411
- Biogenic amines, 309
- Bistability, 383
- Blood flow, 17, 321
- Blood pressure, 89
- BM-13, 505, 161
- Brain, 289, 295, 473
- Burst firing, 135
- $Ca^{2+}$ , 299
- Cadmium, 347
- Calcitonin, 435
- Calcitonin gene-related peptide (CGRP), 575
- Calcium, 435
- Calcium channels, 347
- Capillary filtration coefficient (CFC), 7
- Capillary permeability, 455
- Capillary pressure, 141
- Capsaicin, 575
- Carbon dioxide, 339
- 5-Carboxamidotryptamine, 59
- Carcinoid tumour cells, 291
- Cardiac glycosides, 411
- Cat, 121
- Catecholamine synthesis, 131
- Catecholamines, 569
- Cell counts, 561
- Cell culture, 291
- Cerebral arteries, 151
- Cerebral vessels, 483
- Cholecystokinin, 493
- Choline, 271
- Choline uptake, 107
- Cholinergic neurons, 291
- Choroid plexus, 107
- Circulation, 17
- Citrate synthase, 331
- Clonidine, 137, 463
- Co-transmission, 287
- Contractility, 167
- Contraction, 321
- Coronary stenosis, 321
- Coronary vasodilatation, 575
- Cortisol, 339
- Cross-bridge kinetics, 37
- Cross-bridges, 205
- Cyanide, 367
- Cyclic AMP, 435, 569, 617
- Cytoplasmic  $Ca^{2+}$ , 113
- D1 receptors, 295
- Denervation, 245
- Diabetes insipidus, 133
- Distribution, 17
- DNAs, 281
- DOPA, 75
- DOPA accumulation, 131
- DOPA carboxylase, 75
- Dopamine, 135, 295, 473, 497
- Duodenum, 263
- Electrolyte secretion, 411
- Electromyogram (EMG), 47, 185, 383
- Electrophysiology, 355
- Endothelin, 81
- Endothelium-derived relaxing factor, 81
- Endurance running, 569



- Endurance training, 473  
 Enzyme histochemistry, 589  
 Enzymes, 29  
 Epithelial transport, 411  
 Epitrochlearis muscle, 395  
 Erythropoiesis stimulating factor, 527  
 Erythropoietin, 527  
 Excitatory amino acids, 483  
 Excitatory junction current, 137  
 Exercise, 193, 199, 321, 395, 473  
 Exercise training, 177  
 Extracellular potassium, 151  
  
 Fibre types, 29, 229  
 Fibre volume, 205  
 Fibre width, 205  
 Fibrinogen, 455  
 Filtration fraction, 487  
 Foot-strike type, 217  
 Force, 367  
 Force-velocity relation, 37  
 Forearm, 7  
 Four-vessel occlusion model of brain, 289  
 Frog, 443  
 Frog skin 535, 547  
 Frontal cortex, 497  
 Fura-2, 113  
  
 Ganglionic blockade, 131  
 Gastric H,K-ATPase, 581  
 Gastric acid secretion, 301  
 Gastrin, 301  
 Glands 443, 535, 547  
 Glomerular filtration rate, 487  
 Glomerular regulation, 495  
 Glucagon, 519  
 Glucose 1,6-bisphosphate, 377  
 Glucose 6-phosphate, 377  
 Glucose metabolism, 177  
 Glucose uptake, 377  
 Glucose utilization, 377  
 Glycine-extended gastrins, 301  
 Glycogen breakdown, 229  
 Goldblatt hypertension, 487  
 Ground reaction forces, 217  
 Growth factors, 291  
 Guinea-pig, 59  
  
 Haemodynamics, 321  
 Haemoglobin, 81  
 HCO<sub>3</sub><sup>-</sup> secretion, 263  
 HCO<sub>3</sub><sup>-</sup>-ATPase activity, 107  
 Heart rate, 167  
 Hexokinase, 377  
 Hippocampus, 289, 347  
 Histamine, 309  
 Histamine release, 309  
 Histamine storage, 309  
  
 Histochemistry, 229, 253, 561  
 Human(s), 47, 89, 141, 185, 463, 561  
 Human locomotion, 217  
 Human pulmonary artery, 161  
 5-Hydroxytryptamine, 59, 473  
 8-Hydroxy-2-(di-n-propylamino)-tetralin(8-OH-DPAT), 59  
 Hyperaemia, 551  
 Hypofrontality, 135  
 Hypothalamus, 133  
 Hypovolaemia, 1, 141  
  
 Ibuprofen, 89  
 Immunocytochemistry, 289  
 Immunofluorescence, 291  
 Immunohistochemistry, 253, 615  
 Inhibition, 299  
 Inosine monophosphate, 193  
 Inotropy, 321  
 Insulin, 519  
 Insulin sensitivity, 177  
 Internal mammary artery (IMA), 615  
 Intestinal absorption, 271  
 Intestinal fluid transport, 419  
 Intestinal secretion, 253  
 Intra-axonal flow, 617  
 Intracellular free Ca<sup>2+</sup>, 301  
*In vitro*, 463  
*In vivo*, 463  
 Ion exchange, 309  
 Ion fluxes, 535, 547  
 Ionic strength, 205  
 Ischaemia, 97, 321  
 Islets of Langerhans, 113  
 Isoprenaline, 235, 245  
 Isotonic water transport, 443  
  
 Jejunum, 271, 419  
  
 Ketanserin, 59  
 Kidney, 75  
  
 Lactate, 193, 199  
 Lactate dehydrogenase isoenzymes, 331  
 Left ventricular pressure, 167  
 Lower body negative pressure (LBNP), 1  
  
 Maltodextrin, 69  
 Man, 1, 7, 403  
 Mast cell granules, 309  
 Mast cells, 309  
 Membrane potential, 235, 245  
 Mesenteric arteries, 151  
 Mesolimbic, 135  
 Mesulergine, 59  
 Methacholine, 235  
 Methiothepin, 59  
 Microfluorometry, 113



- Microspheres, 17
- Microtomy, 561
- Morphine, 493
- Morphometry, 597
- Motoneuron, 383
- Motor control, 47
- Motor unit, 383
- Mouse, 527
- Mouse lumbrical muscle, 37
- Mouse vas deferens, 617
- Multiple conductance levels, 611
- Muscle blood flow, 551
- Muscle fatigue, 193
- Muscle metabolism, 193, 199
- Muscle strength, 185
- Muscles, 561
- Myelinated fibres, 97
- Myosin phosphorylation, 367
  
- Na,K-ATPase, 281
- Na<sup>+</sup>,K<sup>+</sup>-ATPase activity, 107
- Na,K-ATPase inhibitor, 281
- Needle biopsy, 561
- Negative pressure, 403
- Neocortex, 289
- Neonate, 527
- Nerve compression, 97
- Nerve stimulation, 81
- Neurokinin A, 575
- Neuronal plasticity, 121
- Neuropeptide Y, 137, 507
- Neuropeptides, 615
- Neurotensin, 493
- NGF-like immunoreactivity, 291
- Nicotinic receptors, 295
- Non-myelinated fibres, 97
- Noradrenaline, 81, 89, 139, 161, 235, 287, 383, 463, 473, 245, 507, 519, 619
  
- ob/ob*-mice, 113
- 17- $\beta$ -Oestradiol, 107
- Optic nerve, 597
- Ornithine decarboxylase, 427
- Osmolality, 499
  
- P<sub>2u</sub>-purinoceptor, 139, 619
- Pain, 493
- Pancreas, 75
- Papillary muscle, 331
- Parietal cells, 301
- Patch clamp, 611
- Pepsin, 581
- Pepsinogen, 581
- Perfusion, 499
- Peri-aqueductal grey, 493
- Pernicious anaemia, 581
- Phenylephrine, 235, 463
- Phenylisopropyl adenosine, 347
  
- Phosphocreatine, 193, 199, 377
- Physical stress, 69
- Physical training, 185
- Pig, 411
- Plasma, 133
- Plasma vasopressin, 69
- Plasma volume, 1, 141, 455
- Plateau potential, 383
- Polyamines, 427
- Postural control, 47
- Potassium, 443, 551
- Potassium channels, 347
- Potassium conductance, 137
- Potassium release, 309
- Pre-frontal cortex, 135
- Pre-junctional control, 617
- Pre-steady-state flux ratio, 535
- Pre-synaptic inhibition, 137
- Pressure transmission, 403
- Progesterone, 107
- Prostaglandin(s), 89, 161
- Prostaglandin F<sub>2a</sub>, 139
- Protein deprivation, 589, 597, 605
  
- Quanta, 355
  
- Rabbit heart, 81
- Radioimmunoassay (RIA), 133
- Rat, 59, 289, 383, 419, 493, 589, 597, 605
- Rat brain, 611
- Rat parotid gland, 245
- Rat tail artery, 287, 299, 619
- <sup>86</sup>Rb<sup>+</sup>, 17
- Recycling, 443
- Reference values, 561
- Regularity, 135
- Regulation, 17
- Renal blood flow, 507
- Renal hypertension, 487
- Renovascular hypertension, 495
- Reserpine, 507
- Ritanserin, 497
  
- Saliva, 435
- Salivary glands, 427
- Salt, 271
- Saphenous veins, 463
- Schizophrenia, 135
- Second messenger, 299, 617
- Sensory nerves, 575
- Serotonergic receptors, 59
- Serotonin, 161, 383, 497
- Shortening velocity, 367
- Single cell recording, 497
- Skeletal muscle, 1, 7, 205, 229
- Skin, 1, 7
- Sodium, 443
- Sodium chloride, 271

- Soleus, 383  
Soleus muscle, 177  
Species and regional differences, 151  
Speed adaptation, 217  
Spinal cord, 383  
Spinal pathways, 121  
Splanchnic nerves, 263, 519  
Stiffness, 205  
Strenuous exercise, 69  
Stress, 395  
Submandibular gland, 435  
Substance P, 235, 427, 493, 575  
Superoxide dismutase, 81  
Supersensitivity, 235  
Sympathetic, 287, 299  
Sympathetic control, 507  
Sympathetic nerves, 519, 617  
Sympathetic co-transmission, 619  
Sympathetic neurotransmission, 355  
Sympatho-adrenal system, 75, 131
- Tactile sensitivity, 121  
Tension, 205  
Tetanus, 205  
Tetanus potentiation, 37  
Thromboxane  $A_2$ , 321  
Thromboxane receptor, 161  
Tissue level, 493  
Tonicity, 205  
Torque, 29  
Transcapillary absorption, 1  
Transcapillary escape rate, 45  
Transmitter release, 617
- Transport pathways, 535  
Trunk, 47  
Tryptophan, 473  
Tyrosine hydroxylase, 75
- U-44069, 161  
U-46619, 161  
Ulcer, 253
- Vagus, 263  
Vascular nerves, 615  
Vascular reactivity, 151  
Vascular smooth muscle, 367  
Vascular transmural pressure, 403  
Vasoactive intestinal peptide (VIP), 235, 427  
Vasoactive intestinal polypeptide, 289  
Vasoconstriction, 321  
Vasomotion, 17  
Vasomotor, 287, 299  
Vasomotor effects, 483  
Vasopressin, 339  
Venous pressure, 141  
Ventral tegmental area, 497  
Ventricle(s), 133, 331  
Visual evoked response, 605  
Visual system, 589  
Volume expansion, 419
- Water, 271
- X-ray micro-analysis, 271
- Yohimbine, 347

